



Training Proposal for:

Sheet Metal Workers' Local No. 104 and Bay Area Industry Apprentice and Journeyman Training Fund

Agreement Number: ET18-0905

Panel Meeting of: August 25, 2017

ETP Regional Office: San Francisco Bay Area

Analyst: C. Hoover

PROJECT PROFILE

Contract Attributes:	Retrainee Apprenticeship Priority Rate Veterans	Industry Sector(s):	Construction Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Counties Served:	Northern California	Repeat Contractor:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Union(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Sheet Metal Workers' Local Union No. 104		
Turnover Rate:	≤20%		
Managers/Supervisors: (% of total trainees)	N/A		

FUNDING DETAIL

Program Costs	+	Support Costs	=	Total ETP Funding
\$888,504		\$61,428 8%		\$949,932

In-Kind Contribution:	50% of Total ETP Funding Required	Inherent
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TRAINING PLAN TABLE

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Retrainee Priority Rate Journeyman	Commercial Skills, Computer Skills, Business Skills, OSHA 10/30	91	8-200	0	\$752	\$45.82
				Weighted Avg: 32			
2	Retrainee Apprentice	Commercial Skills, Business Skills, OSHA 10	291	8-210	0	\$2,780	\$22.04
				Weighted Avg: 200			
3	Retrainee Priority Rate Pre-Apprentice	Commercial Skills, Business Skills, OSHA 10 Literacy Skills	30	8-200	0	\$564	\$22.04
				Weighted Avg: 24			
4	Retrainee Apprentice Veterans	Commercial Skills, Business Skills, OSHA 10	20	8-210	0	\$2,780	\$22.04
				Weighted Avg: 200			

Minimum Wage by County: Job Numbers 1-4 (SET/Priority Industry): \$22.04 per hour

Health Benefits: ☒ Yes ☐ No This is employer share of cost for healthcare premiums – medical, dental, vision.

Used to meet the Post-Retention Wage?: ☒ Yes ☐ No ☐ Maybe

Up to \$4.31 per hour may be used to meet the Post-Retention Wage for Job Number 3

Wage Range by Occupation		
Occupation Titles	Wage Range	Estimated # of Trainees
Job Number 1 (Journeymen)		
Building Trades Sheet Metal Worker; Air Conditioning Mechanic; Test, Adjust & Balancing Technician	\$45.82 - \$59.07	91
Job Number 2 (Apprentices)		
Building Trades Sheet Metal Worker; Air Conditioning Mechanic; Test, Adjust & Balancing Technician	\$22.91 - \$49.22	291
Job Number 3 (Pre-Apprentices)		
Building Trades Sheet Metal Worker; Air Conditioning Mechanic; Test, Adjust & Balancing Technician	\$17.73 - \$20.26	30
Job Number 4 (Veterans/Apprentices)		
Building Trades Sheet Metal Worker; Air Conditioning Mechanic; Test, Adjust & Balancing Technician	\$22.91 - \$49.22	20

*The wage range for Journeymen is due to cost-of-living adjustment by geographic region and varying union locals. The Apprentice wages follow suit, as a percentage of Journeymen.

INTRODUCTION

The Sheet Metal Workers' Local 104 and Bay Area Industry Apprentice and Journeyman Training Fund (Sheet Metal Trust) (www.smw104training.org) is an "umbrella trust" fund created through a collective bargaining agreement (CBA) between Local 104 and the Bay Area Association of Sheet Metal Contractors (Bay Area Contractors). The Trust oversees four training centers that serve 17 counties in Northern California assisting some 6,500 union members and approximately 275 signatory employers.

Prior to 1992, the signatory employers were members of five different sheet-metal trade associations, each with a different trust fund. Following the creation of Bay Area Contractors, these five separate trust funds merged into one. Sheet Metal Trust is administered by 10 trustees designated equally by Local 104 and the signatory employers from Bay Area Contractors. These employers are primarily in the construction industry or transportation industries, both of which are Priority Industries for ETP.

Sheet Metal Trust sponsors seven different apprenticeship programs for the sheet metal trades. Three of those programs will be funded under this proposal. Sheet Metal Trust serves about 821 apprentices, but did not apply for funding on behalf of the other programs based on lower enrollment and retention rates.

This will be the sixth ETP Agreement with Sheet Metal Trust (referred to previously as the Bay Area Sheet Metal JAC) and the fourth in five years. This is the second time Veterans have been introduced as a distinct group of Apprentice trainees.

Funding Cap

The Panel capped funding for Apprentice training at \$450,000 per program sponsor in FY 2016/17, with case-by-case flexibility. This cap does not apply to Pre-Apprentice and Journeyman training.

As a result of the merger between five trade associations, Sheet Metal Trust funds training for a large number of Apprentices over a broad geographic region. Sheet Metal Trust administered training for a total of 840 registered Apprentices located across 17 counties in 2017. Each region has its own training centers: East Bay located in San Leandro, North Bay located in Fairfield, and South Bay located in Santa Clara and Castroville.

Given the broad scope of this geographic region, and the large numbers of Apprentices to be trained, a \$450,000 cap may be overly restrictive in this case. As such, staff recommends funding for Apprentices (Job Number 2) and Veteran Apprentices (Job Number 4) totaling \$864,580 (Job Number 2 + Job Number 4).

Training is scheduled and delivered in each region by a local Training Coordinator. Training Coordinators meet on a regular basis to share curriculum, develop best practices, and plan new coursework requested by signatory employers.

The following four Sheet Metal Trust training centers will be participating under this ETP training program: Alameda/Contra Costa Sheet Metal Workers-San Leandro (Main Office); Monterey/San Benito/Santa Cruz Sheet Metal Workers-Castroville; North Bay Sheet Metal Workers-Fairfield; Santa Clara Sheet Metal Workers-San Jose.

Veterans Program

Sheet Metal Trust has committed to training 20 Veterans in Job Number 4. The Sheet Metal Trust's training programs are registered with Helmets to Hardhats, and Sheet Metal Trust works with other veteran groups as well.

In the prior Agreement (ET16-0921), Sheet Metal Trust delivered over 4,066 hours of training to 28 veterans with potential earnings totaling \$52,864 (95%) of the amount allocated to this trainee group.

Employer Demand

Construction work for sheet metal workers continues to grow in the Bay Area, especially on the San Francisco Peninsula and in the South Bay. Sheet Metal Trust reports that these construction projects led to the registration of over 125 new Apprentices in 2016, and another 85 are expected in 2017.

- SF Transbay Terminal: Work continues with Phase 1 to complete in 2018. This is a \$1.6 billion project, including \$12 million for Heating, Ventilation and Air Conditioning (HVAC).
- 181 Fremont, San Francisco (SF): This is a mixed-use project of 411,000 square feet of office space and 68 residential units, with a \$500 million budget including \$20 million in HVAC, scheduled for completion in 2017.
- California Pacific Medical Center, Van Ness Hospital project: This hospital is scheduled to open in March of 2019 and includes \$200 million in HVAC. This will be a 13-story hospital with 274 patient beds.
- California Pacific Medical Center, St Luke's Hospital project. This hospital is expected to open in 2018. This will be a 7-story hospital with 120 patient beds. This includes \$60 million in HVAC.

ETP funding will help Sheet Metal Trust train and prepare Sheet Metal Workers to work on many other large construction projects. Funding will support the Sheet Metal Trust's commitment to developing and delivering certification classes that ensure workers are trained in the latest practices and technologies.

According to the Sheet Metal Trust, an upswing in construction has generated the need for more apprentices to enter the sheet metal trade. In 2015 the number of 1st year apprentices accepted was 157, and for 2016 it was around 200. In 2017 the number of 1st year apprentices accepted is 43 to date with a projected year-end total of 160-165. In July 2016, Sheet Metal Trust had 110 graduates, and expects to graduate another 100 Apprentices in 2017.

However, Sheet Metal Trust continues to have difficulty finding qualified Apprentices. To build a larger "pipeline," Sheet Metal Trust is requesting ETP funds to train Pre-Apprentices (Job Number 3).

As Journeymen retire and construction expands in the Bay Area, there is a gap of qualified sheet metal workers. As such, the Sheet Metal Trust also seeks funding for Journeymen (Job Number 1).

Apprenticeship Program

The Panel is authorized to fund Apprentice training that does not displace any other source of government funds, or replace an existing apprenticeship program approved by the Division of Apprenticeship Standards (DAS). The Panel adopted the Apprenticeship Training Program as a

pilot in March 2012. It is designed to supplement cost of delivery for the Related and Supplemental Instruction (RSI) portion of DAS-approved apprenticeship training. In this case, each program is five years.

For the building trades, it is not customary for workers to be employed for a standard retention period of 90 consecutive days with one employer. In that instance, the Panel may substitute non-consecutive hours worked for retention. This modified retention period must be no less than 500 hours within 272 days with more than one employer. Both the standard and modified retention periods will apply to this proposal.

To ensure ETP does not displace Montoya Funds, Apprenticeship reimbursement is reduced by \$5, reducing the priority industry rate from \$18 to \$13 per hour. In addition, the Panel adopted a “blended rate” for Journeymen, reflecting the fact that they may be employed by a variety of contractors over the two-year term of contract ranging from large employers, to small (≤ 100 employees). This is \$22 per hour, midway between the Priority Industry standard rate (\$18) and Small Business rate (\$26). [Note: This “blended rate” has been extended to Pre-Apprentices, for ease of administration.]

The ETP wage for Apprentices is no less than \$22.04 per hour, tracking the Special Employment Training wage as modified for priority industries. However, the actual wages paid are shown in the Training Plan Table and contract when they exceed \$22.04, for both Apprentices and Journeymen.

PROJECT DETAILS

The Sheet Metal trade is unique because it is one of the few crafts where a worker starts with raw material, creates a component, and then installs and maintains the product. Workers constantly meet new challenges: using their hands; visualizing and analyzing how components can be made or installed; knowing how mechanical systems work; and, practicing collaborative skills when working with customers and coordinating with other workers.

Pre-Apprentice

Pre-Apprenticeship is an option for most of the programs sponsored by Sheet Metal Trust. Applicants may choose this path to establish their reputation as a worker, experience the trade enough to help with career decisions, gain additional work experience as needed for their apprenticeship application, and earn money pending acceptance into the full program.

Pre-Apprentice is an occupation with its own wage rates under each of the pertinent CBAs. These workers assist, and are supervised by the Journeymen. Employers are limited in the number of Pre-Apprentices they can hire (relative to the number of Journeymen and Apprentices) and the tasks that can be assigned.

Sheet Metal Trust anticipates delivering the majority of Pre-Apprentice training hours in Commercial Skills. A small percentage will be in Business Skills, Literacy Skills in vocational English and math customized for the sheet metal trade and OSHA 10.

Overall, the Pre-Apprentice program is about 24 hours in length and doesn't replicate courses taught in the apprenticeship programs.

Journeyman

For Journeymen, Sheet Metal Trust will offer specialty and upgraded Commercial, Business and Computer Skills and OSHA 10/30. These skills will address new technologies and equipment such as Revit CAD Detailing Software, GTAW Welding, and a Testing Adjusting and Balancing Bureau (TABB) Certification course. This proposal will allow Sheet Metal Trust to expand the number of classes teaching more advanced skills.

Training Plan

The four training sites offer the most up-to-date facilities and equipment. Sheet Metal Trust is committed to using its trust fund for upgrading its facilities.

Commercial Skills (80%): Training will be provided to all occupations. Training may cover: (1) green construction practices and materials; (2) new equipment and updated building standards related to green business practices necessary to meet commercial requirements; (3) new skills to develop, retrofit and maintain greener buildings; and (4) more safety competency, as opposed to just safety awareness.

Computer Skills (10%): Training will be provided to all Journeymen. Training will include 3-Dimensional (3-D) virtual construction software. Sheet Metal Trust reports that if this training need is not met, the trend to send 3-D modeling offshore will continue. Other courses include: software applications for planning, scheduling, and tracking jobs; meeting “lean construction project” requirements; and installing/adjusting automated systems.

Business Skills (2%): Training will be provided to all occupations. Trainees will develop skills to collaborate and coordinate with construction workers from all of the various trades on the different parts of a building project. Trainees will need to learn team skills so that they can work well as part of a larger team and techniques to reduce waste and meet budgets. Training also includes leadership skills so that trainees can better manage projects.

Literacy Skills (3%): Training will be provided to Pre-Apprentices and include Math for Sheet Metal and Vocational English related to sheet metal projects and documentation to understand and utilize new technologies and equipment.

Certified Safety Training

OSHA 10/30 (5%): This training is a series of courses “bundled” by industry sector and occupation. Completion of the training results in a certificate that expands employment opportunities. Training consists of OSHA 10 for Apprentices and Pre-Apprentices; and OSHA 10/30 for Journeymen. The coursework is geared to construction work, and also manufacturing. Completion of the training results in a certificate that expands employment opportunities. The coursework must be approved by Cal-OSHA, and the instructors must be certified by Cal-OSHA.

Commitment to Training

ETP funds will not displace the existing financial commitment to training. Employers will continue to make contributions to the training trust for every hour worked by Apprentices, Pre-Apprentices, and Journeymen. Safety training is provided in accordance with all pertinent requirements under state and federal law.

Sheet Metal Trust has an Administrator based in the Bay Area Chapter at the San Leandro training site. This Administrator works closely with the training coordinators at each training site. An

administrative subcontractor - Strategy Workplace Communications has been hired to help manage this ETP project. California Labor Federation and Strategy Workplace Communications assisted with the development of this proposal as well.

➤ **Training Infrastructure**

Sheet Metal Trust has nine full-time trainers and 31 part-time trainers providing instruction at its four participating training centers for this ETP project. These trainers are Journeymen in the sheet metal trade and are experts in their subject matter.

Training will start immediately upon approval by the Panel. Each training center's scheduling varies, but the majority of the training will occur in the fall, winter and spring months with limited training happening during the summer. The types of training are outlined below:

Impact/Outcome

Certifications that may be earned include: Title 24 and CA Mechanical Acceptance Testing Technician, TABB Technician and Supervisor Certifications, various American Welding Society Weld Certifications, Environmental Protection Agency Refrigerant Handling Certifications, North American Technicians Excellence, Inc. HVAC Service and Installation Certifications, OSHA 10, OSHA 30, Rigging and Signal Certifications as well as certifications to use a variety of material handling and lift equipment.

Marketing and Support Costs

The Sheet Metal Trust is requesting 8% in support costs to promote training opportunities. Outreach is coordinated with the 275 signatory employers, many of which are small businesses. Support costs will also be used by Sheet Metal Trust in recruiting from the 6,500 union member population. Recruiting Pre-Apprentices and Apprentices from schools, employment centers and community organizations is needed. The ETP-funded training will be discussed at all labor-management meetings and pertinent trade, industry, and apprenticeship events.

Sheet Metal Trust routinely meets with signatory employers and other stakeholders to assess training needs for each geographic region. This includes face-to-face meetings, emails, and phone contact with the various Sheet Metal and Air Conditioning Contractors' National Associations and Local 104. Sheet Metal Trust anticipates personnel costs for recruitment and outreach in excess of the ETP support funds provided, and that nine Sheet Metal Trust staff people will assist with ETP-related marketing, recruitment, needs assessments, and scheduling. Sheet Metal Trust will assume responsibility for any additional costs. Staff recommends the 8% support costs.

Tuition Reimbursement

Students enrolled in the ETP-funded program will not be charged tuition, fees, or any other costs associated with training. The representation will be made a condition of the Agreement.

RECOMMENDATION

Staff recommends approval of this proposal.

ACTIVE PROJECTS

The following table summarizes performance by Sheet Metal Trust under an active ETP Agreement:

Agreement No.	Approved Amount	Term	No. Trainees (Estimated)	No. Completed Training	No. Retained
ET16-0921	\$949,932	2/1/16-1/31/18	432	685	160

Based on ETP Systems, 72,321 reimbursable hours have been tracked for potential earnings of \$991,176 (104% of approved amount). The Contractor projects final earnings of 100% based on training currently committed to by employers and in progress through June 2017. Final reimbursement is anticipated to occur at the end of November 2017.

PRIOR PROJECTS

The following table summarizes performance by Sheet Metal Trust under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned \$ %
ET14-0904	Multiple	11/25/13-11/24/15	\$1,177,197	\$1,177,197 (100%)
ET11-0331	Multiple	6/30/11-6/29/13	\$397,280	358,524 (90%)

DEVELOPMENT SERVICES

California Labor Federation in Sacramento, in conjunction with Strategy Workplace Communications in Oakland, assisted with development of this proposal at no charge.

ADMINISTRATIVE SERVICES

Strategy Workplace Communications will perform administrative services for a fee not to exceed 13% of payment earned.

TRAINING VENDORS

N/A

Exhibit B: Menu Curriculum**Class/Lab Hours**

8-200 (Job Number 1)

JOURNEYMAN

Trainees may receive any of the following:

COMMERCIAL SKILLS

- Advanced Welding Skills
- Architecture Designs
- California (CA) Green Building Code Training
- Disaster Training
- Ducts Maintenance
- Energy Auditing: Total Building (Green Training)
- Energy Auditing: Total Heating Ventilation and Air Conditioning (HVAC) Systems (Green Training)
- Fire / Life HVAC System Building Inspection Training
- California Home Energy Rating System Program
- Job Coordination Training
- Lean Construction Training
- Management and Monitoring of Materials
- Materials and Equipment Testing for Industrial Use
- Proper Machine and Equipment Set-Up
- Rigging and Signal Training
- Safe Working Practices
- Testing Materials and Equipment – Proper Set-Up and Use
- Understanding Changes to Industry Standards
- Upgrading Lead Handling and Asbestos Removal Skills
- Working with Building Materials Training
- Control System Service
- Detailing
- Gas Tungsten Arc Welding
- Testing Adjusting and Balancing Bureau Certification Training
- Survival Skills:
 - Technology Update
 - Trade Math
 - Layout Review
- Title 24 Certification:
 - California Mechanical Acceptance Testing Technician Certification
 - Energy Efficiency

COMPUTER SKILLS

- 3-D Modeling – Virtual Construction
- Automated Systems Applications
- Benchmark Software – Lean Construction
- Job Tracking System
- Scheduling & Planning Jobs
- Revit Computer-Aided Design Detailing Software

BUSINESS SKILLS

- Conflict Resolution
- Customer Service Skills
- Decision Making Skills
- Inventory Checklist
- Leadership Skills
- Problem Solving
- Project Management
- Teambuilding Skills

OSHA 10/30 (OSHA Certified Instructor)

- OSHA 10 (requires completion of 10-hour course)
- OSHA 30 (requires completion of 30-hour course)

APPRENTICE**Class/Lab Hours**

8-210 (Jobs 2 & 4)

COMMERCIAL SKILLS

- Advanced Architectural
- Advanced Electricity for Sheet Metal Air Conditioning Service
- Advanced Layout and Fabrication
- Advanced Welding
- Air Balance Test Equipment Instruments
- Air Conditioning, Commercial Systems, Heating
- Air Distribution & Manufacturing Systems
- Architectural Sheet Metal
- Basic Electricity for Sheet Metal Air Conditioning Service
- Basics of Architectural Sheet Metal
- CAD Detailing
- Codes and Standards
- Commercial Systems, Heat Loads, Piping
- Common Furnace Features
- Control System Service
- Control Systems
- Detailing
- Electrical Systems Operation, Controls & Devices
- Fabrication and Shortcuts
- Field Installation
- Filters and Filter Housings
- Final Architectural/Industrial Project
- Final HVAC Project
- Forman Training
- Furnace Installation
- Gas Tungsten Arc Welding
- Hazardous Material Recognition for the Test & Air Balance Industry
- HVAC Air Systems and Duct Design
- HVAC Energy Conservation
- HVAC Testing & Balancing Procedures
- Industrial and Stainless Steel Introduction
- Installing Thermostats, Flues and Vents

- Intermediate CAD
- Measuring and Sketching
- Metal Roofing
- Parallel Line Fittings
- Piping
- Plans and Specifications
- Project Management, Takeoffs, Estimates
- Properties of Air Distribution for Sheet Metal Air Conditioning Service
- Radial Line Layout and Sheet Metal Offsets
- Refrigeration for Sheet Metal Air Conditioning Service
- Refrigeration Theory for Sheet Metal Air Conditioning Service
- Residential AC Units
- Residential Duct Systems
- Residential Structure and Sheet Metal Work
- Service Basics for Sheet Metal Workers
- Sheet Metal Control Systems
- Sheet Metal to TABB
- Submittals and Shop Drawings
- Survival Skills
- Systems Installation & Troubleshooting
- Temperature Measurement Instruments & Duct Systems
- Title 24 Certification:
 - California Mechanical Acceptance Testing Technician
 - Energy Efficiency
- Triangulation Fittings
- Welding I:
 - Process and Safety Overview
 - Gas, Metal Arc Welding
- Welding II:
 - Gas, Metal Arc Welding
 - Flux-Cored Arc Welding

BUSINESS SKILLS

- Customer Service
- Project Management for the Test & Balance Industry

OSHA 10 (OSHA Certified Instructor)

- OSHA 10 (requires completion of 10-hour course)

PRE-APPRENTICE**Class/Lab Hours**

8-200 (Job Number 3)

COMMERCIAL SKILLS

- Introduction to Architectural Designs
- Introduction to Green Building
- Orthographic and Pictorial Views and Sketching
- Sheet Metal Career Paths
- Sheet Metal Language
- Sheet Metal Math

- Sheet Metal Tools, Equipment and Their Usage
- Understanding Changes to Industry Standards
- Disaster Training

BUSINESS SKILLS

- Conflict Resolution
- Customer Service Skills
- Decision Making Skills
- Inventory Checklist
- Leadership Skills
- Problem Solving
- Project Management
- Teambuilding Skills

LITERACY TRAINING

- Math for Sheet Metal Workers
- Vocational English Skills for Sheet Metal Workers
 - Reading Work Documents Accurately
 - Writing Reports
 - Communicating with Customers and Co-Workers

OSHA 10 (OSHA Certified Instructor)

- OSHA 10 (requires completion of 10-hour course)

Literacy Training cannot exceed 45% of total training hours, per-trainee.

Safety Training cannot exceed 10% of total training hours per-trainee.

(This cap does not apply OSHA 10/30)

Note: Reimbursement for retraining is capped at 200 total training hours per trainee for Job Numbers 1 and 3 and 210 total hours per trainee (200 hours Commercial and Business Skills + 10 hours of OSHA 10) for Job Numbers 2 and 4, regardless of the method of delivery.